

or a pharmaceutically acceptable salt thereof.

2. (Twice amended) An isolated or purified compound having the formula EST, wherein:

a) E and S define a saponin oligosugar portion, with E defining the terminal sugar portion thereof; and

b) T defines a steroid-like portion, wherein T is a pregnane-3β-ol derivative.

3. The compound of claim 2, wherein S is selected from the group consisting of a tetra sugar derivative, a monomeric sugar derivative and an oligomeric of sugar derivatives.

4. The compound of claim 2, wherein S is selected from the group consisting of α(1-4) (2-deoxy, 3-methoxy) -L-lyxotetrose, α(1-4) (2-deoxy, 3-methoxy) L-xylotetrose, α(1-4) (2-deoxy, 3-methoxy)-L-arabinotetrose, α(1-4) (2-deoxy, 3-methoxy)-L-xylotetrose, α(1-4) (2-deoxy, 3-methoxy)-L-ribopyranotetrose, α(1-4) (2-deoxy, 3 methoxy-L-sorbotetrose, α(1-4)-L-lyxotetrose, α(1-4)-L-xylotetrose, α(1-4)-L-arabinotetrose, α(1-4)-L-xylotetrose, α(1-4)-3, 4 methoxy-L-lyxotetrose, α(1-4)-3, 4 methoxy-L-xylotetrose, α(1-4)-3,4 methoxy-L-arabinotetrose, α(1-4)-3,4 methoxy-L-xylotetrose, α(1-4)-3,4 methoxy-L-ribopyranotetrose, α(1-4)-3,4 methoxy-L-sorbotetrose, α(1-4)-L-lyxotetrose, α(1-4)-L-xylotetrose, α(1-4)-L-arabinotetrose, α(1-4)-L-ribopyranotetrose, oleanetrose, and α(1-4)-L-sorbotetrose.

5. The compound of claim 2, wherein E is selected from the group consisting of 4-acetoxy-3 methoxy-L-α-lyxose, 4-acetoxy-3-methoxy-L-α-xylose,

4-acetoxy-3-methoxy-L- $\alpha$ -xylose,  
diacetylfucose, and

7. The compound of claim 2, wherein said compound is capable of displaying an inhibitory activity of the steady state R-type calcium channel.

The chemical structure shows a branched polysaccharide with three repeating units labeled 2, 3, and 7. Unit 2 is a pyranose ring with an acetyl group (CH<sub>3</sub>CO-) at C2, a methoxy group (CH<sub>3</sub>O-) at C3, and a hydroxyl group (OH) at C4. Unit 3 is a pyranose ring with an acetyl group (CH<sub>3</sub>CO-) at C2. Unit 7 is a pyranose ring with a hydroxyl group (OH) at C4. The units are linked by glycosidic bonds, with unit 2 linked to unit 3, and unit 3 linked to unit 7.

9. A specific R-type calcium channel inhibitor having the structure of the compound of claim 29.

11. A pharmaceutical composition comprising at least one compound of claim 1, together with a pharmaceutically acceptable carrier.

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a drug which overstimulate R-type  $\text{Ca}^{2+}$  channels; and (c) treating a disease or condition in which a sustained elevation of  $[\text{Ca}]_c$ ,  $[\text{Ca}]_n$  or R-type  $\text{Ca}^{2+}$  blocking is encountered.

13. (deleted)

14. (deleted)

15. (deleted)

16. (deleted)

17. (deleted)

18. A method for specifically inhibiting overstimulation of a R-type  $\text{Ca}^{2+}$  channel in a warm blooded animal in need of an inhibition of said overstimulation, comprising an administration thereto of an effective amount of the compound of claim 1, together with a pharmaceutically acceptable carrier.

19. (deleted)

20. (Amended) A method of treating a disease or condition associated with an overstimulation of R-type  $\text{Ca}^{2+}$  channels without significantly affecting the basal activity thereof in a patient suffering from said disease or condition, comprising an administration thereto of an effective amount of the compound of claim 1, together with a pharmaceutically acceptable carrier.

21. (deleted)

22. (Amended) A method of treating a disease or condition associated with a sustained elevation of  $[\text{Ca}]_c$ ,  $[\text{Ca}]_n$ , R-type  $\text{Ca}^{2+}$  blocking, and/or cytosolic and nuclear  $\text{Ca}^{2+}$  accumulation in a patient suffering from said disease or condition, comprising an administration thereto of a therapeutically effective amount of a R-type  $\text{Ca}^{2+}$  channel blocker compound according to claim 1, together with a pharmaceutically acceptable carrier.

23. (deleted)

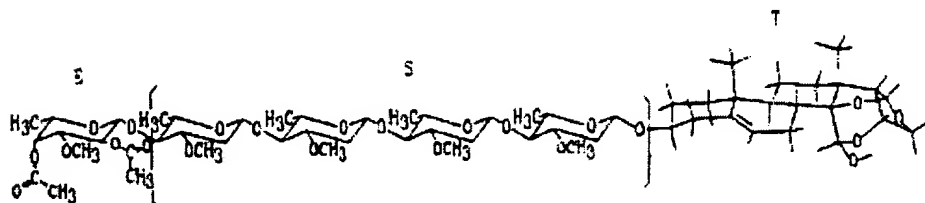
24. (Amended) A method for decreasing spontaneous cell proliferation comprising administering to said cell with an effective amount of a compound according to claim 1, together with a pharmaceutically acceptable carrier.

25. (deleted)

26. (deleted)

27. (deleted)

28. (Amended) The compound of claim 2, having the formula:



or a pharmaceutically acceptable salt thereof.

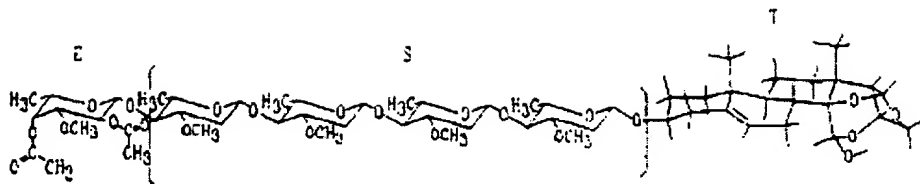
29. (Amended) An isolated or purified compound having the formula EST, wherein:

a) E and S define a saponin oligosugar portion, with E defining the terminal sugar portion thereof; and

b) T defines a steroid-like portion, wherein T is a pregnane-3 $\beta$ -ol derivative having the structure shown in Figure 1A, 1B, 1C, 1D, 1E, 1F, 1G or 1H.

30. The compound of claim 6, wherein S is L oleandrose, E is 3-O-methylether 2, 4 diacetylfucose, and T is 5-pregnane-3 $\beta$ -ol oxytricyclo 15-ol.

31. (Amended) An isolated or purified R-type Ca<sup>2+</sup> channel blocker, having the formula:



or a pharmaceutically acceptable salt thereof.

32. A pharmaceutical composition, comprising at least one compound of claim 2, together with a pharmaceutically acceptable carrier.

33. (Amended) A method of treating a disease or condition associated with an overstimulation of R-type  $\text{Ca}^{2+}$  channels without significantly affecting the basal activity thereof in a patient suffering from said disease or condition, comprising an administration thereto of an effective amount of the compound of claim 2, together with a pharmaceutically acceptable carrier.

34. (Amended) A method of treating a disease or condition associated with a sustained elevation of  $[\text{Ca}]_c$ ,  $[\text{Ca}]_n$ , R-type  $\text{Ca}^{2+}$  blocking, and/or cytosolic and nuclear  $\text{Ca}^{2+}$  accumulation in a patient suffering from said disease or condition, comprising an administration thereto of a therapeutically effective amount of a R-type  $\text{Ca}^{2+}$  channel blocker compound according to claim 2, together with a pharmaceutically acceptable carrier.

35. (Amended) A method for decreasing spontaneous cell proliferation comprising administering to said cell with an effective amount of a compound according to claim 2, together with a pharmaceutically acceptable carrier.

36. A pharmaceutical composition comprising at least one compound of claim 28, together with a pharmaceutically acceptable carrier.

37. (Amended) A method of treating a disease or condition associated with an overstimulation of R-type  $\text{Ca}^{2+}$  channels without significantly affecting the basal activity thereof in a patient suffering from said disease or condition, comprising an administration thereto of an effective amount of the compound of claim 28, together with a pharmaceutically acceptable carrier.

38. (Amended) A method of treating a disease or condition associated with a sustained elevation of  $[Ca]_c$ ,  $[Ca]_n$ , R-type  $Ca^{2+}$  blocking, and/or cytosolic and nuclear  $Ca^{2+}$  accumulation in a patient suffering from said disease or condition, comprising an administration thereto of a therapeutically effective amount of a R-type  $Ca^{2+}$  channel blocker compound according to claim 28, together with a pharmaceutically acceptable carrier.

39. (Amended) A method for decreasing the spontaneous proliferation of a cell comprising, administering to said cell with an effective amount of a compound according to claim 28, together with a pharmaceutically acceptable carrier.

40. (Amended) A method of treating a disease or condition associated with an overstimulation of R-type  $Ca^{2+}$  channels without significantly affecting the basal activity thereof in a patient suffering from said disease or condition, comprising an administration thereto of an effective amount of a compound having the structure shown in Figure 1A, 1B, 1C, 1D, 1E, 1F, 1G or 1H, together with a pharmaceutically acceptable carrier.

Please add new claims 41-47 as follows:

41. (New) A method of preventing a disease or condition associated with an overstimulation of R-type  $Ca^{2+}$  channels without significantly affecting the basal activity thereof in a patient at risk of developing said disease or condition, comprising an administration thereto of an effective amount of the compound of claim 1, together with a pharmaceutically acceptable carrier.

42. (New) A method of preventing a disease or condition associated with a sustained elevation of  $[Ca]_c$ ,  $[Ca]_n$ , R-type  $Ca^{2+}$  blocking, and/or cytosolic and nuclear  $Ca^{2+}$  accumulation in a patient at risk of developing said disease or condition, comprising an administration thereto of a therapeutically effective amount of a R-type  $Ca^{2+}$  channel blocker compound according to claim 1, together with a pharmaceutically acceptable carrier.

43. (New) A method of preventing a disease or condition associated with an overstimulation of R-type  $Ca^{2+}$  channels without significantly affecting the basal activity thereof in a patient at risk of developing said disease or condition, comprising an administration thereto of an effective amount of a compound having the structure shown in

Figure 1A, 1B, 1C, 1D, 1E, 1F, 1G or 1H, together with a pharmaceutically acceptable carrier.

44. (New) The method of claim 24, wherein said cell is a cancer or tumor cell.

45. (New) The method of claim 35, wherein said cell is a cancer or tumor cell.

46. (New) The pharmaceutical composition of claim 11, wherein said isolated or purified compound is MV8612 and/or MV8608.

47. (New) The pharmaceutical composition of claim 12, wherein said isolated or purified compound is MV8608 and/or MV8612.